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Absolute Emission-Line Intensities in Planetary Nebulae. IV. (E) B. A. Vorontsov-Vel'yaminov, E. B. Kostyakova, O. D. Dokuchaeva, and V. P. Arkhipova. 12, 895 (1969) [45, 1128 (1968)]

KOTSEV, I. N.
Radio Lines of the Interstellar NO Molecule. (T) I. N. Kotsev, G. I. Georgiev, and V. M. Kontorovich. 12, 1030 (1969) [45, 1306 (1968)]

KOVAL', A. G.
Infrared Emission Spectra of Some Molecular Gases Excited by Fast Electrons. (E) A. G. Koval', N. P. Danilevskii, V. T. Koppe, and Ya. M. Fogel'. 12, 1045 (1969) [45, 1322 (1968)]

KOVAL', I. K.
Phase Dependence of the Brightness of Mars. (E) I. K. Koval'. 12, 668 (1969) [45, 841 (1968)]

KOZHEVNIKOV, N. I.
A Comparative Study of the Behavior of Lines on the Solar Disk from Eclipse and Out-of-Eclipse Observations. (E) M. S. Murasheva, N. I. Kozhevnikov, and G. F. Sitnik. 12, 36 (1968) [45, 45 (1968)]

KOZHUKHOV, V. N.
Flux Densities and Spectral Indices for the Sources in the 3C and 3CR Catalogs at 86-MHz Frequency. (E) V. S. Artyukh, V. V. Vitkevich, R. D. Dagkesamanskii, and V. N. Kozhukhov. 12, 567 (1969) [45, 712 (1968)]

KRASINSKII, G. A.
Quasiperiodic Solutions of the First Kind in the Plane n-Body Problem. (T) G. A. Krasinskii. 12, 155 (1968) [45, 195 (1968)]

KREININ, E. I.
Absolute Determination of Star Declinations with Instruments not Having Accurately Divided Circles. (T) E. I. Kreinin. 12, 356 (1968) [45, 447 (1968)]

KRINBERG, I. A.
Dependence of the Ionization Cross Section of Excited Hydrogen Atoms on the Principal Quantum Number. (T/E) I. A. Krinberg. 12, 840 (1969) [45, 1061 (1968)].

KROTIKOV, V. D.
Thermal Conditions of the Lunar Topsoil and the Integrated Radio Emission of the Eclipsed Moon. (T/E) V. A. Alekseev, L. V. Drobova, and V. D. Krotikov. 12, 872 (1969) [45, 1101 (1968)]

KULI-ZADE, D. M.
Effect of Term Parity on the Curve of Growth. (E/T) D. M. Kuli-Zade. 12, 54 (1968) [45, 69 (1968)]
A New Solar Curve of Growth. (E) D. M. Kuli-Zade. 12, 254 (1968) [45, 321 (1968)]

KURCHAKOV, A. V.
Models for Scattering in a Spherical Nebula. (T) A. V. Kurchakov and V. S. Matyagin. 12, 169 (1968) [45, 211 (1968)]

KURIL'CHIK, V. N.
Radio Emission Spectra of Radio Galaxies. (T/E) V. N. Kuril'chik and E. E. Lekht. 12, 386 (1968) [45, 485 (1968)]

KURMAKAEV, Z. Kh.
Some Periods in the Gravitational Field of a Rotating Body. (T) Z. Kh. Kurmakaev. 12, 655 (1969) [45, 823 (1968)]

KURT, V. G.
Absorption of Soft X Rays in the Interstellar Medium and the Spectrum of the Source Sco X-1. (T/E) L. A. Vainshtein, V. G. Kurt, and E. K. Sheffer. 12, 189 (1968) [45, 237 (1968)]

KUZHEVSKII, B. M.
Nuclear Reactions and the Line Spectrum of Solar-Flare Gamma Rays. (T/E). B. M. Kuzhevskii. 12, 595 (1969) [45, 747 (1968)]

KUZNETSOV, B. I.
An Investigation of the Backscattering Diagram of Venus at 40-cm Wavelength. (E/T) Yu. N. Aleksandrov, B. I. Kuznetsov, and O. N. Rzhiga. 12, 294 (1968) [45, 371 (1968)]

LATYSHEV, I. N.
Studies of Local Star Streams. I. The Hyades Stream. (E) K. F. Ogorodnikov and I. N. Latyshev. 12, 279 (1968) [45, 353 (1968)]

LEKHT, E. E.
Radio Emission Spectra of Radio Galaxies. (T/E) V. N. Kuril'chik and E. E. Lekht. 12, 386 (1968) [45, 485 (1968)]

LIPOVETSKII, V. A.
Absorbing Material in Clusters of Galaxies. (E/T) I. D. Karachentsev and V. A. Lipovetskii. 12, 909 (1969) [45, 1148 (1968)]

LIPOVKA, N. M.
Radio Emission of Components A and B of the Quasar 3C 273 at 3.9 cm. (E) N. M. Lipovka. 12, 889 (1969) [45, 1122 (1968)]

LIPSKII, Yu. N.
The Nature of the Bright Rays on the Moon. (E) Yu. N. Lipskii and V. V. Shevchenko. 12, 309 (1968) [45, 389 (1968)]

LOSOVSKII, B. Ya.
Measurements of the Phase Dependence of the 0.8-cm Radio Emission of Mercury, and Some Properties of Its Surface Layer. (E/T) V. K. Golovkov and B. Ya. Losovskii. 12, 299 (1968) [45, 378 (1968)]

LOTOVA, N. A.
The Nature of the Irregular Structure of the Interplanetary Plasma. (T/E) N. A. Lotova and A. A. Rukhadze. 12, 271 (1968) [45, 343 (1968)]

LOZINSKAYA, T. A.
Spectrophotometry of the Supernova Remnants IC 443 and NGC 6888. (E) T. A. Lozinskaya and V. F. Esipov. 12, 913 (1969) [45, 1153 (1968)]

LUKASHEVICH, E. L.
Intermediate Orbits of Natural Satellites of Planets. (T) E. L. Lukashevich. 12, 675 (1969) [45, 850 (1968)]

MAKAROVA, E. A.
Mean Absolute Energy Distribution in the Solar Spectrum from 1800 Å to 4 mm, and the Solar Constant. (E) E. A. Makarova and A. V. Kharitonov. 12, 599 (1969) [45, 752 (1968)]

MAN'KO, V. I.
The 1.6-cm Radio Emission of Solar Sources Associated with Sunspots and Flocculi. (E) A. S. Grebinskii, V. I. Man'ko, and L. V. Yasnov. 12, 473 (1968) [45, 597 (1968)]

MAROCHNIK, L. S.
The Rest Mass of a Photon. (T) L. S. Marochnik. 12, 171 (1968) [45, 213 (1968)]
Collective Phenomena in Stellar Systems and the Problem of Relaxation. (T) L. S. Marochnik. 12, 371 (1968) [45, 464 (1968)]
Gravitational Stability of Rotating Anisotropic Stellar Systems. (T) L. S. Marochnik and N. G. Ptitsina. 12, 411 (1968) [45, 516 (1968)]
Stellar Motion in the Gravitational Field of Condensing Interstellar Gas. (T) L. S. Marochnik. 12, 1000 (1969) [45, 1264 (1968)]

MATVEENKO, L. I.
Radio-Brightness Distribution of the Crab Nebula at 535 MHz. (E) L. I. Matveenko. 12, 128 (1968) [45, 160 (1968)]
Position of a Source of Small Angular Size in the Crab Nebula. (E) L. I. Matveenko. 12, 552 (1968) [45, 695 (1968)]
Variability of Flux Densities of Some Radio Sources at the Frequency of 5760 MHz. (E) V. I. Kostenko and L. I. Matveenko. 12, 936 (1969) [45, 1181 (1968)]

MATYAGIN, V. S.
Models for Scattering in a Spherical Nebula. (T) A. V. Kurchakov and V. S. Matyagin. 12, 169 (1968) [45, 211 (1968)]

MIKHAILOV, A. A.
The Secular Variations of Geographic Coordinates. (E) A. A. Mikhailov. 12, 377 (1968) [45, 473 (1968)]
Broadening of Hydrogen Spectral Lines by Plasma Electrons. (T) A. A. Minaeva. 12, 459 (1968) [45, 578 (1968)]

MINAEVA, A. A.
Radiation Diffusion in a Plane Layer with Anisotropic Scattering. II. (T) I. N. Minin. 12, 209 (1968) [45, 264 (1968)]

MININ, I. N.
Turbulent Velocities in Faculae and the Photosphere. (E/T) G. F. Sitnik and O. N. Mitropol'skaya. 12, 363 (1968) [45, 456 (1968)]

MOLODENSKII, M. M.
Integral Properties of Force-Free Fields. (T) M. M. Molodenskii. 12, 585 (1969) [45, 732 (1968)]

MOROZ, V. I.
Experimental Observations at 8–14 μ with a Photoconductive Cell Cooled by Liquid Helium. (E) V. I. Moroz, N. V. Vasil'chenko, L. B. Danilyants, and S. A. Kaufman. 12, 150 (1968) [45, 189 (1968)]
Photometric Observations of Some Peculiar Objects in the Wavelength Range 1-2.5 μ. (E) V. I. Moroz and É. A. Dibai. 12, 184 (1968) [45, 231 (1968)]

MOROZOV, V. M.
On the Possibility of Measuring Tangential Velocities by the Doppler Effect. (T) V. M. Morozov. 12, 173 (1968) [45, 216 (1968)]

MURASHEVA, M. S.
A Comparative Study of the Behavior of Lines on the Solar Disk from Eclipse and Out-of-Eclipse Observations. (E) M. S. Murasheva, N. I. Kozhevnikov, and G. F. Sitnik. 12, 36 (1968) [45, 45 (1968)]

MYCHELKIN, É. G.
The Polarization of Synchrotron Radiation. (T) É. G. Mychelkin. 12, 326 (1968) [45, 408 (1968)]

NADEZHIN, D. K.
Similarity Theory for Stellar Models. (T) V. S. Imshennik and D. K. Nadezhin. 12, 63 (1968) [45, 81 (1968)]
A Similarity Solution for Collapse through Energy Losses by Neutrino Radiation. (T) D. K. Nadezhin. 12, 924 (1969) [45, 1166 (1968)]

NAGORNYKH, L. M.
Detection of the 5765.2-MHz Helium Radio Line in the Orion Nebula. (E) V. M. Gudnov, V. V. Zotov, L. M. Nagornykh, and R. L. Sorochenko. 12, 747 (1969) [45, 942 (1968)]

NALIMOV, V. N.
The Structure of the Hyades. (E) V. N. Nalimov. 12, 144 (1968) [45, 181 (1968)]

NOSKOVA, R. I.
Comparison of Descriptions of Galaxies in the Morphological Catalog of Galaxies with Their Classifications. (E) B. A. Vorontsov-Vel'yaminov and R. I. Noskova. 12, 112 (1968) [45, 141 (1968)]
Absolute Spectrophotometry of Some Infrared Lines in Planetary-Nebula Spectra. (E) R. I. Noskova. 12, 1039 (1969) [45, 1315 (1968)]

NOVIKOV, I. D.
Expected Anisotropy of Cosmological Radio Emission in Homogeneous Anisotropic Models. (T) I. D. Novikov. 12, 427 (1968) [45, 538 (1968)]

NOVIKOV, V. V.
Stratovolcanos in the Lunar Mesorelief. (E) V. V. Novikov. 12, 891 (1969) [45, 1124 (1968)]

OGORODNIKOV, K. F.
Studies of Local Star Streams. I. The Hyades Stream. (E) K. F. Ogorodnikov and I. N. Latyshev. 12, 279 (1968) [45, 353 (1968)]

ORLOV, M. Ya.
The Atmospheres of Beta Canis Majoris Stars. I. Gamma Pegasi. (E) M. Ya. Orlov. 12, 89 (1968) [45, 115 (1968)]
Variations in the Circumstellar Envelope of the M Supergiant α Orionis. (E) M. Ya. Orlov and M. H. Rodriguez. 12, 369 (1968) [45, 462 (1968)]
The Atmospheres of Beta Canis Majoris Stars. II. Delta Ceti. (E) M. Ya. Orlov. 12, 450 (1968) [45, 568 (1968)]

OZERNOI, L. M.
Analysis of the Nature of a Quasar Nucleus from Statistical Properties of Its Optical Variability. (T/E) L. I. Gudzenko, L. M. Ozernoi, and V. E. Chertoprud. 12, 392 (1968) [45, 492 (1968)]
The "Photon Eddy" Hypothesis and the Formation of Protogalaxies. II. (T) L. M. Ozernoi and A. D. Chernin. 12, 901 (1969) [45, 1137 (1968)]

PALEI, A. B.
A Differential Astrophotometer. (E) A. B. Palei. 12, 162 (1968) [45, 205 (1968)]
Integrating Photometers. (E) A. B. Palei. 12, 164 (1968) [45, 207 (1968)]
An Integrating Microphotometer. (E) A. B. Palei. 12, 696 (1969) [45, 878 (1968)]

PARIISKII, Yu. N.
On the Origin of the Blackbody Radiation of the Universe. (T/E) Yu. N. Pariiskii. 12, 219 (1968) [45, 279 (1968)]

PETEROVA, N. G.
The Sizes of Local Sources of Solar Radio Emission at a Wavelength of 4.5 cm. (E) A. N. Korzhavin and N. G. Peterova. 12, 28 (1968) [45, 36 (1968)]

PETRUKHIN, N. S.
Influence of a Homogeneous Horizontal Magnetic Field on Convection in a Polytropic Atmosphere. (T) N. S. Petrukhin. 12, 257 (1968) [45, 325 (1968)]

PIKEL'NER, S. B.
Hari K. Sen. The Generalized Magneto-Ionic Theory. (R) Reviewed by S. B. Pikel'ner. 12, 717 (1969) [45, 906 (1968)]
Gas Motions in Diffuse Nebulae and Stellar Wind. (E) S. B. Pikel'ner and P. V. Shcheglov. 12, 757 (1969) [45, 953 (1968)]

PIL'NIK, G. P.
Conversion to the New System of Fundamental Constants of the Coefficients in Woolard's Theory for the Tidal Nonuniformity in the Earth's Rotation. (T) G. P. Pil'nik. 12, 1050 (1969) [45, 1326 (1968)]

PLATOV, Yu. V.
Evolution of High-Temperature Regions under Cosmic Conditions. (T/E) A. A. Korchak and Yu. V. Platov. 12, 939 (1969) [45, 1185 (1968)]

POPOV, M. V.
Eclipsing Variables near the Main Sequence. (E/T) M. V. Popov. 12, 640 (1969) [45, 804 (1968)]
Absolute Dimensions of 18 Eclipsing Binary Systems and Some Evolutionary Considerations. (E/T) M. V. Popov. 12, 1033 (1969) [45, 1309 (1968)]

POSPERGELIS, M. M.
Measurement and Computation of the Instrumental Stokes Vector. (T/E) M. M. Pospergelis. 12, 512 (1968) [45, 645 (1968)]
Spectroscopic Measurements of the Four Stokes Parameters for Light Scattered by Natural Objects. (E) M. M. Pospergelis. 12, 973 (1969) [45, 1229 (1968)]

POZIGUN, V. A.
Stellar Energy Distribution at Infrared Wavelengths. (E) N. S. Komarov and V. A. Pozigun. 12, 105 (1968) [45, 133 (1968)]

POSKOVSKII, Yu. P.
Identification of the Absorption Spectrum of the Type I Supernova. (E) Yu. P. Pskovskii. 12, 750 (1969) [45, 945 (1968)]
The Starting Time of a Supernova Outburst and the Mass of the Ejected Envelope. (E/T) Yu. P. Pskovskii. 12, 919 (1969) [45, 1160 (1968)]

PTITSINA, N. G.
Gravitational Stability of Rotating Anisotropic Stellar Systems. (T) L. S. Marochnik and N. G. Ptitsina. 12, 411 (1968) [45, 516 (1968)]

RODRIGUEZ, M. H.
Variations in the Circumstellar Envelope of the M Supergiant α Orionis. (E) M. Ya. Orlov and M. H. Rodriguez. 12, 369 (1968) [45, 462 (1968)]

RUKHADZE, A. A.
The Nature of the Irregular Structure of the Interplanetary Plasma. (T/E) N. A. Lotova and A. A. Rukhadze. 12, 271 (1968) [45, 343 (1968)]

RUMYANTSEV, A. A.
Acceleration of Charged Particles by the Dissipative Force in a Radiation Flux. (E) L. É. Gurevich and A. A. Rumyantsev. 12, 133 (1968) [45, 166 (1968)]

RYKHLOVA, L. V.
Motion of the Earth's Pole, 1846.0-1891.5, from Observations at Pulkovo, Greenwich, and Washington. (E) L. V. Rykhlova. 12, 898 (1969) [45, 1132 (1968)]

RYZHKOV, N. F.
Observations of the Radio Source W49 with the Large Pulkovo Radio Telescope. (E) N. V. Bystrova, I. V. Gosachinskii, T. M. Egorova, N. F. Ryzhkov, and A. V. Frantsesson. 12, 179 (1968) [45, 225 (1968)]

RZHIGA, O. N.
An Investigation of the Backscattering Diagram of Venus at 40-cm Wavelength. (E/T) Yu. N. Aleksandrov, B. I. Kuznetsov, and O. N. Rzhiga. 12, 294 (1968) [45, 371 (1968)]
Diffuse Scattering and the Radar Reflectivity of Planetary Surfaces. (T/E) Yu. N. Aleksandrov and O. N. Rzhiga. 12, 489 (1968) [45, 616 (1968)]

SAGITOV, M. U.
Michele Caputo. The Gravity Field of the Earth from Classical and Modern Methods. (R) Reviewed by M. U. Sagitov. 12, 718 (1969) [45, 906 (1968)]

SALMANOV, I. R.
Displacement and Broadening of Fraunhofer Lines. II. Variation of Turbulent Velocity in the Solar Atmosphere. (E/T) I. A. Aslanov, Yu. D. Davudov, and I. R. Salmanov. 12, 49 (1968) [45, 62 (1968)]

SARYCHEV, A. P.
The Role of Electron Collision in the Dissociation of CO Molecules on the Sun. (T/E) A. P. Sarychev and G. F. Sitnik. 12, 1027 (1969) [45, 1303 (1968)]

SAZANOV, A. A.
Laboratory Techniques for the Study of Scattering in a Coronagraph Objective. (E) A. A. Sazanov. 12, 349 (1968) [45, 438 (1968)]

SHAROV, A. S.
A Subsystem of Bright Globular Clusters in the Andromeda Nebula. (E) A. S. Sharov. 12, 116 (1968) [45, 146 (1968)]
The Subsystem of Novae in the Andromeda Nebula. (E) A. S. Sharov. 12, 265 (1968) [45, 335 (1968)]
Bright Main-Sequence Stars in the Cluster NGC 7142. (E) A. S. Sharov. 12, 550 (1968) [45, 693 (1968)]
Dust Material in the Andromeda Nebula. (E) A. S. Sharov. 12, 779 (1969) [45, 980 (1968)]

SHATSOVA, R. B.
The Plank Stellar Velocity Distribution. III. The Ellipsoidal Approximation. (T) R. B. Shatsova. 12, 993 (1969) [45, 1254 (1968)]

SHCHEGLOV, P. V.
Use of a Fabry-Perot Etalon for Obtaining Monochromatic Solar Images. (E) É. V. Kononovich and P. V. Shcheglov. 12, 235 (1968) [45, 299 (1968)]
Gas Motions in Diffuse Nebulae and Stellar Wind. (E) S. B. Pikel'ner and P. V. Shcheglov. 12, 757 (1969) [45, 953 (1968)]

SHEFFER, E. K.
Absorption of Soft X Rays in the Interstellar Medium and Spectrum of the Source Sco X-1. (T/E) L. A. Vainshtein, V. G. Kurt, and E. K. Sheffer. 12, 189 (1968) [45, 237 (1968)]

SHEPTUNOV, G. S.
Nonpolar Latitude Variations from 1959-1965 Observations at the Blagoveshchensk Latitutde Laboratory. (E) G. S. Sheptunov. 12, 701 (1969) [45, 885 (1968)]

SHEVCHENKO, V. V.
The Nature of the Bright Rays on the Moon. (E) Yu. N. Lipskii and V. V. Shevchenko. 12, 309 (1968) [45, 389 (1968)]

SHILOVA, N. S.
Densities in the Emission Regions of Ionized Metals in the Lower Chromosphere. I. (E/T) N. S. Shilova. 12, 238 (1968) [45, 302 (1968)]
Densities in the Emission Regions of Ionized Metals in the Lower Chromosphere. II. (E/T) N. S. Shilova. 12, 826 (1969) [45, 1043 (1968)]

SHKLOVSKII, I. S.
Application of the Special-Relativity Principle to an Interpretation of Some Sources of Cosmic Radio Waves. (T/E) I. S. Shklovskii. 12, 730 (1969) [45, 919 (1968)]

SHOLOMITSKII, G. B.
Radioluminosity Function of Galaxies and Related Problems. (T/E) G. B. Sholomitskii. 12, 381 (1968) [45, 478 (1968)]

SIDORENKOV, N. S.
Methods for Estimating the Influence of Atmospheric Circulation on the Earth's Rotational Velocity. (T/E) N. S. Sidorenkov. 12, 303 (1968) [45, 382 (1968)]
The Influence of Atmospheric Circulation on the Earth's Rotational Velocity, 1956.8-1964.8. (E/T) N. S. Sidorenkov. 12, 706 (1969) [45, 892 (1968)]

SIMONENKO, A. N.
The Behavior of Small Particles Detached from a Meteoroid. (T/E) A. N. Simonenko. 12, 341 (1968) [45, 428 (1968)]

SITNIK, G. F.
A Comparative Study of the Behavior of Lines on the Solar Disk from Eclipse and Out-of-Eclipse Observations. (E) M. S. Murasheva, N. I. Kozhevnikov, and G. F. Sitnik. 12, 36 (1968) [45, 45 (1968)]
Turbulent Velocities in Faculae and the Photosphere. (E/T) G. F. Sitnik and O. N. Mitropol'skaya. 12, 363 (1968) [45, 456 (1968)]
The Role of Electron Collision in the Dissociation of CO Molecules on the Sun. (T/E) A. P. Sarychev and G. F. Sitnik. 12, 1027 (1969) [45, 1303 (1968)]

SNEZHKO, L. I.
A Preliminary Analysis of the Physical Conditions in Helium-Star Envelopes. (T) L. I. Snezhko. 12, 199 (1968) [45, 251 (1968)]

SLONIM, Yu. M.
Flares, Prominences, and Loop Prominences. I. (E/T) Yu. M. Slonim. 12, 225 (1968) [45, 286 (1968)]
Flares, Filaments, and Loop Prominences. II. (T/E) Yu. M. Slonim. 12, 578 (1969) [45, 726 (1968)]

SMIRNOVA, T. A.
A Polarization Interference Filter with Thermooptically Compensated Elements for Observing the Solar Corona. (E/T) S. B. Ioffe and T. A. Smirnova. 12, 822 (1969) [45, 1037 (1968)]

SOBOLEV, V. V.
An Investigation of the Atmosphere of Venus. II. (T/E) V. V. Sobolev. 12, 135 (1968) [45, 169 (1968)]
Anisotropic Scattering of Light in a Semiinfinite Atmosphere. I. (T) V. V. Sobolev. 12, 202 (1968) [45, 254 (1968)]
Anisotropic Scattering of Light in a Semiinfinite Atmosphere. II. (T) V. V. Sobolev. 12, 420 (1968) [45, 528 (1968)]

SOROCHENKO, R. L.
Detection of the 5765.2-MHz Helium Radio Line in the Orion Nebula. (E) V. M. Gudnov, V. V. Zotov, L. M. Nagornykh, and R. L. Sorochenko. 12, 747 (1969) [45, 942 (1968)]

STARIKOVA, G. A.
The Dispersion in the Two-Color Diagrams of Open Star Clusters. (E) G. A. Starikova. 12, 632 (1969) [45, 795 (1968)]

TABACHNIK, V. M.
Determination of the Limb-Darkening Coefficient and Orbital Elements of Eclipsing Binaries by the Method of Quickest Descent. (T/E) V. M. Tabachnik. 12, 830 (1969) [45, 1048 (1968)]
Theoretical Values of Limb-Darkening Coefficients. (T) V. M. Tabachnik. 12, 956 (1969) [45, 1207 (1967)]

TARASOV, A. F.
Frequency Spectrum of the Distributed Cosmic Radio Emission in the Range from 6.3 to 40 MHz. (E) G. G. Getmantsev, V. S. Karavanov, Yu. S. Korobkov, and A. F. Tarasov. 12, 743 (1969) [45, 936 (1967)]

TSYTOVICH, V. N.
Conversion of Plasma Waves into Electromagnetic Waves in a Strong Magnetic Field. (T) V. N. Tsytovich and S. A. Kaplan. 12, 618 (1969) [45, 777 (1968)]
Polarization of the Radiation of Turbulent Plasma under Cosmic Conditions. (T) V. N. Tsytovich. 12, 806 (1969) [45, 1016 (1968)]

TVERSKOI, B. A.
A Possible Mechanism for Producing Sunspot Magnetic Fields. (T/E) A. V. Getling and B. A. Tverskoi. 12, 481 (1968) [45, 606 (1968)]

URANOVA, T. A.
Spatial Structure of the Galactic Dust Layer and Its Relation to the Apparent Brightness of the Milky Way. (E/T) T. A. Uranova. 12, 1041 (1969) [45, 1318 (1968)]

VAINSHTEIN, L. A.
Absorption of Soft X Rays in the Interstellar Medium and the Spectrum of the Source Sco X-1. (T/E) L. A. Vainshtein, V. G. Kurt, and E. K. Sheffer. 12, 189 (1968) [45, 237 (1968)]

VAINSHTEIN, S. I.
Dynamics of a Magnetic Field in a Turbulent Medium. (T) S. I. Vainshtein. 12, 589 (1969) [45, 738 (1968)]

VAISBERG, V. V.
Total Energy of Relativistic Particles and Magnetic Field in Discrete Radio Sources Exhibiting Reabsorption. (T) S. Ya. Braude and V. V. Vaisberg. 12, 125 (1968) [45, 157 (1968)]

VANDAKUROV, Yu. V.
The Equilibrium State of a Rotating Magnetic Gas Sphere. (T) Yu. V. Vandakurov. 12, 80 (1968) [45, 103 (1968)]
The Energy of a Rotating Star and Its Dependence on the Angular-Velocity Distribution. (T) Yu. V. Vandakurov. 12, 647 (1969) [45, 813 (1968)]

VASIL'CHENKO, N. V.
Experimental Observations at 8–14 μ with a Photoconductive Cell Cooled by Liquid Helium. (E). V. I. Moroz, N. V. Vasil'chenko, L. B. Danilyants, and S. A. Kaufman. 12, 150 (1968) [45, 189 (1968)]

VITKEVICH, V. V.
Flux Densities and Spectral Indices for the Sources in the 3C and 3CR Catalogs at 86-MHz Frequency. (E) V. S. Artyukh, V. V. Vitkevich, R. D. Dagkesamanskii, and V. N. Kozhukhov. 12, 567 (1969) [45, 712 (1968)]
Results of Radio Observations of Irregularities in the Interplanetary Plasma, 1965–1966. (E) T. D. Antonova and V. V. Vitkevich. 12, 788 (1969) [45, 991 (1968)]

VORONTSOV-VEL'YAMINOV, B. A.
Comparison of Descriptions of Galaxies in the Morphological Catalog of Galaxies with Their Classifications. (E) B. A. Vorontsov-Vel'yaminov and R. I. Noskova. 12, 112 (1968) [45, 141 (1968)]
NGC 7293 Filaments and Their Significance. (E) B. A. Vorontsov-Vel'yaminov. 12, 389 (1968) [45, 489 (1968)]
Absolute Emission-Line Intensities in Planetary Nebulae. IV. (E) B. A. Vorontsov-Vel'yaminov, E. B. Kostyakova, O. D. Dokuchaeva, and V. P. Arkhipova. 12, 895 (1969) [45, 1128 (1968)]

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Absorbing Material in Clusters of Galaxies. (E/T) I. D. Karachentsev and V. A. Lipovetskii. 12, 909 (1969) [45, 1148 (1968)]

INTERPLANETARY MEDIUM

The Nature of the Irregular Structure of the Interplanetary Plasma. (T/E) N. A. Lotova and A. A. Rukhadze. 12, 271 (1968) [45, 343 (1968)]

Results of Radio Observations of Irregularities in the Interplanetary Plasma, 1965-1966. (E) T. D. Antonova and V. V. Vitkevich. 12, 788 (1969) [45, 991 (1968)]

INTERSTELLAR MEDIUM
Absorption of Soft X Rays in the Interstellar Medium and the Spectrum of the Source Sco X-1. (T/E) L. A. Vainshtein, V. G. Kurt, and E. K. Sheffer. 12, 189 (1968) [45, 237 (1968)]
Dust Material in the Andromeda Nebula. (E) A. S. Sharov. 12, 779 (1969) [45, 980 (1968)]
Stellar Motion in the Gravitational Field of Condensing Interstellar Gas. (T) L. S. Marochnik. 12, 1000 (1969) [45, 1264 (1968)]

IONIZATION AND EXCITATION
Dependence of the Ionization Cross Section of Excited Hydrogen Atoms on the Principal Quantum Number. (T/E) I. A. Krinberg. 12, 840 (1969) [45, 1061 (1968)]
The Quasiclassical Approximation for the Oscillator Strength and Effective Cross Sections of Radiative Transitions. (T) L. A. Bureeva. 12, 962 (1969) [45, 1215 (1968)]

IONOSPHERE
Hari K. Sen. The Generalized Magneto-Ionic Theory. (R) Reviewed by S. B. Pikel'ner. 12, 717 (1969) [45, 906 (1968)]

LATITUDE AND LONGITUDE
The Secular Variations of Geographic Coordinates. (E) A. A. Mikhailov. 12, 377 (1968) [45, 473 (1968)]
Nonpolar Latitude Variations from 1959-1965 Observations at the Blagoveshchensk Latitude Laboratory. (E) G. S. Sheptunov. 12, 701 (1969) [45, 885 (1968)]
Motion of the Earth's Pole, 1846.0-1891.5, from Observations at Pulkovo, Greenwich, and Washington. (E) L. V. Rykhlova. 12, 898 (1969) [45, 1132 (1968)]

MAGNETIC FIELDS
Integral Properties of Force-Free Fields. (T) M. M. Molodenskii. 12, 585 (1969) [45, 732 (1968)]

MAGNETOHYDRODYNAMICS
Nonlinear Waves with a Magnetic Field in Cosmic Plasma. (T) M. A. Gintsburg. 12, 484 (1968) [45, 610 (1968)]
Dynamics of a Magnetic Field in a Turbulent Medium. (T) S. I. Vainshtein. 12, 589 (1969) [45, 738 (1968)]

MARS
Phase Dependence of the Brightness of Mars. (E) I. K. Koval'. 12, 668 (1969) [45, 841 (1968)]
Ring-Shaped and Linear Structures on Mars. (E/T) G. N. Katterfeld and P. Hédervari. 12, 863 (1969) [45, 1091 (1968)]

MERCURY
Measurements of the Phase Dependence of the 0.8-cm Radio Emission of Mercury and Some Properties of Its Surface Layer. (E/T) V. K. Golovkov and B. Ya. Losovskii. 12, 299 (1968) [45, 378 (1968)]

METEORS, PHYSICAL PROPERTIES
The Behavior of Small Particles Detached from a Meteoroid. (T/E) A. N. Simonenko. 12, 341 (1968) [45, 428 (1968)]

MOON, CONTERENCES
Z. Kopal and C. L. Goudas, Editors. Measure of the Moon. (R) Reviewed by A. A. Gurshtein. 12, 175 (1968) [45, 218 (1968)]

MOON, GRAVITATIONAL FIELD
Accurate Calculation of the Motion of Artificial Moon Satellites, Including Solar and Lunar Radiation Pressure. (T) S. N. Kirpichnikov. 12, 535 (1968) [45, 675 (1968)]
The Gravitational Field and Figure of the Moon. (T/E) N. A. Chuikova. 12, 1021 (1969) [45, 1293 (1968)]

MOON, RADIO EMISSION
Thermal Conditions of the Lunar Topsoil and the Integrated Radio Emission of the Eclipsed Moon. (T/E) V. A. Alekseev, L. V. Drobova, and V. D. Krotikov. 12, 872 (1969) [45, 1101 (1968)]

MOON, SURFACE PROPERTIES
The Nature of the Bright Rays on the Moon. (E) Yu. N. Lipskii and V. V. Shevchenko. 12, 309 (1968) [45, 389 (1968)]
Distribution of Color Index over the Lunar Surface. (E) N. N. Evsyukov. 12, 876 (1969) [45, 1106 (1968)]
Stratovolcanos in the Lunar Mesorelief. (E) V. V. Novikov. 12, 891 (1969) [45, 1124 (1968)]

NEBULAE, DARK
The Nature of the Elongated Dark Lanes in Diffuse Nebulae. (T) E. A. Dibai. 12, 275 (1968) [45, 349 (1968)]

NEBULAE, DIFFUSE
Models for Scattering in a Spherical Nebula. (T) A. V. Kurchakov and V. S. Matyagin. 12, 169 (1968) [45, 211 (1968)]
Spectra of Hα Emission Objects in the Diffuse Nebulae IC 1396 and Simeiz 130. (E) É. A. Dibai and V. F. Esipov. 12, 448 (1968) [45, 566 (1968)]
Detection of the 5765.2-MHz Helium Radio Line in the Orion Nebula. (E) V. M. Gudnov, V. V. Zotov, L. M. Nagornykh, and R. L. Sorochenko. 12, 747 (1969) [45, 942 (1968)]
Gas Motions in Diffuse Nebulae and Stellar Wind. (E) S. B. Pikel'ner and P. V. Shcheglov. 12, 757 (1969) [45, 953 (1968)]
The Cometary Nebulae Simeiz 129 and 130. (E/T) É. A. Dibai. 12, 768 (1969) [45, 966 (1968)]
The Radiation of the Reflection Nebulae around Merope and Maia. (E/T) B. P. Artamonov. 12, 773 (1969) [45, 973 (1968)]

NEBULAE, PLANETARY
Improved Values of the Interstellar Absorption for Planetary Nebulae. (E) V. P. Arkhipova. 12, 374 (1968) [45, 467 (1968)]
NGC 7293 Filaments and Their Significance. (E) B. A. Vorontsov-Vel'yaminov. 12, 389 (1968) [45, 489 (1968)]
Absolute Emission-Line Intensities in Planetary Nebulae. IV. (E) B. A. Vorontsov-Vel'yaminov, E. B. Kostyakova, O. D. Dokuchaeva, and V. P. Arkhipova. 12, 895 (1969) [45, 1128 (1968)]
Photoelectric Observations of the Nuclei of the Planetary Nebulae He 1-5 and NGC 1514. (E) V. P. Arkhipova. 12, 1036 (1969) [45, 1312 (1968)]
Absolute Spectrophotometry of Some Infrared Lines in Planetary-Nebula Spectra. (E) R. I. Noskova. 12, 1039 (1969) [45, 1315 (1968)]

NEUTRINO RADIATION
Neutrino Radiation during Stellar Collapse. (T) O. Kh. Guseinov. 12, 783 (1969) [45, 985 (1968)]
A Similarity Solution for Collapse through Energy Losses by Neutrino Radiation. (T) D. K. Nadezhin. 12, 924 (1969) [45, 1166 (1968)]

NIGHT-SKY GLOW
Polarization of Certain Components of Night-Sky Radiation Scattered by the Troposphere. (T/E) N. B. Divari. 12, 503 (1968) [45, 634 (1968)]

NOVAE
A Quantitative Spectrum Analysis of Nova Herculis 1963. II. Determination of the Physical Parameters of the Star and the Envelope in Its Nebular Stage. (E/T) V. T. Doroshenko. 12, 95 (1968) [45, 121 (1968)]
The Subsystem of Novae in the Andromeda Nebula. (E) A. S. Sharov. 12, 265 (1968) [45, 335 (1968)]

ORBITS, THEORY AND COMPUTATION
Accurate Calculation of the Motion of Artificial Moon Satellites, Including Solar and Lunar Radiation Pressure. (T) S. N. Kirpichnikov. 12, 535 (1968) [45, 675 (1968)]

Some Periods in the Gravitational Field of a Rotating Body. (T) Z. Kh. Kurmakaev. 12, 655 (1969) [45, 823 (1968)]
Intermediate Orbits of Natural Satellites of Planets. (T) E. L. Lukashevich. 12, 675 (1969) [45, 850 (1968)]
A Method for Determining a Circular Satellite Orbit from Three Observations, with Only One Accurately Timed. (T) R. A. Zeinalov. 12, 1008 (1969) [45, 1275 (1968)]
Canonical Equations of Motion for a Satellite. (T) E. P. Aksenov. 12, 1015 (1969) [45, 1284 (1968)]

PERSONALIA AND OBITUARIES
Sëmen Émmanuilovich Khaikin, 1901-1968. (R) 12, 1053 (1969) [45, 1330 (1968)]

PHOTOMETRY
A Differential Astrophotometer. (E) A. B. Palei. 12, 162 (1968) [45, 205 (1968)]
Integrating Photometers. (E) A. B. Palei. 12, 164 (1968) [45, 207 (1968)]
Derivation of Isophotes for Extended Celestial Objects by the Photographic Equidensitometry Method. (E) I. I. Breido and K. P. Ermoshina. 12, 666 (1969) [45, 865 (1968)]
An Integrating Microphotometer. (E) A. B. Palei. 12, 696 (1969) [45, 878 (1968)]

PLANETS AND SATELLITES
Equations for the Rotational Motion of Planets in General Relativity Theory. (T) V. A. Brumberg. 12, 659 (1969) [45, 828 (1968)]

PLASMA PROCESSES
The Origin of Type-V Solar Radio Bursts. (T) V. V. Zheleznyakov and V. V. Zaitsev. 12, 14 (1968) [45, 19 (1968)]
The Nature of the Irregular Structure of the Interplanetary Plasma. (T/E) N. A. Lotova and A. A. Rukhadze. 12, 271 (1968) [45, 343 (1968)]
Conversion of Plasma Waves into Electromagnetic Waves in a Strong Magnetic Field. (T) V. N. Tsytovich and S. A. Kaplan. 12, 618 (1969) [45; 777 (1968)]
Polarization of the Radiation of Turbulent Plasma under Cosmic Conditions. (T) V. N. Tsytovich. 12, 806 (1969) [45, 1016 (1968)]

POLARIZATION AND POLARIMETRY
Polarization of Type-II and Type-III Solar Radio Bursts. (T) V. V. Fomichev and I. M. Chertok. 12, 21 (1968) [45, 28 (1968)]
The Polarization of Synchrotron Radiation. (T) É. G. Mychelkin. 12, 326 (1968) [45, 408 (1968)]
Longitude Dependence of the Degree of Polarization of Type-III Solar Radio Bursts. (E/T) V. V. Fomichev and I. M. Chertok. 12, 477 (1968) [45, 601 (1968)]
Polarization of Certain Components of Night-Sky Radiation Scattered by the Troposphere. (T/E) N. B. Divari. 12, 503 (1968) [45, 634 (1968)]
Measurement and Computation of the Instrumental Stokes Vector. (T/E) M. M. Pospergelis. 12, 512 (1968) [45, 645 (1968)]
Elliptical Polarization of Type-III Solar Radio Bursts in the Decameter Range. (E/T) V. V. Fomichev and I. M. Chertok. 12, 615 (1969) [45, 773 (1968)]
Polarization of the Radiation of Turbulent Plasma under Cosmic Conditions. (T) V. N. Tsytovich. 12, 806 (1969) [45, 1016 (1968)]
A Polarization Interference Filter with Thermooptically Compensated Elements for Observing the Solar Corona. (E/T) S. B. Ioffe and T. A. Smirnova. 12, 822 (1969) [45, 1037 (1968)]
Spectroscopic Measurements of the Four Stokes Parameters for Light Scattered by Natural Objects. (E) M. M. Pospergelis. 12, 973 (1969) [45, 1229 (1968)]

PRIMORDIAL BACKGROUND RADIATION
On the Origin of the Blackbody Radiation of the Universe. (T/E) Yu. N. Pariiskii. 12, 219 (1968) [45, 279 (1968)]
Expected Anisotropy of Cosmological Radio Emission in Homogeneous Anisotropic Models. (T) I. D. Novikov. 12, 427 (1968) [45, 538 (1968)]

PULSARS
The Corona of a Pulsar – Its Oscillations and Radiation. (T) Ya. B. Zel'dovich. 12, 725 (1969) [45, 913 (1968)]

QUASISTELLAR OBJECTS, OPTICAL OBSERVATIONS
A Possible Structure of Wide Emission Lines in the Spectra of Some Quasars. (T/E) B. V. Komberg. 12, 401 (1968) [45, 504 (1968)]
Redshifts of Some Radio Galaxies and Quasistellar Radio Sources. (E) É. A. Dibai and V. F. Esipov. 12, 561 (1969) [45, 705 (1968)]

QUASISTELLAR OBJECTS, PHYSICAL THEORY
Analysis of the Nature of a Quasar Nucleus from Statistical Properties of Its Optical Variability. (T/E) L. I. Gudzenko, L. M. Ozernoi, and V. E. Chertoprud. 12, 392 (1968) [45, 492 (1968)]
X-Ray Emission from Radio Galaxies and Quasars. (T/E) B. V. Komberg and V. M. Charugin. 12, 737 (1969) [45, 928 (1968)]

QUASISTELLAR OBJECTS, RADIO OBSERVATIONS
Radio Emission of Components A and B of the Quasar 3C 273 at 3.9 cm. (E) N. M. Lipovka. 12, 889 (1969) [45, 1122 (1968)]

RADAR ASTRONOMY
An Investigation of the Backscattering Diagram of V[illegible]s at 40-cm Wavelength. (E/T) Yu. N. Aleksandrov, B. I. Ku[illegible]netsov, and O. N. Rzhiga. 12, 294 (1968) [45, 371 (1968)]
Diffuse Scattering and the Radar Reflectivity of Planetary Surfaces. (T/E) Yu. N. Aleksandrov and O. N. Rzhiga. 12, 489 (1968) [45, 616 (1968)]
Radar Observations of the Sun, and a Mechanism for Producing the Reflected Signal in the Corona. (T/E) I. M. Gordon. 12, 796 (1969) [45, 1002 (1968)]

RADIATION SCATTERING
Models for Scattering in a Spherical Nebula. (T) A. V. Kurchakov and V. S. Matyagin. 12, 169 (1968) [45, 211 (1968)]

RADIATIVE TRANSFER THEORY
The Lyman-α Radiation Field in a Chromospheric Filament. (T) N. A. Yakovkin and M. Yu. Zel'dina. 12, 40 (1968) [45, 50 (1968)]
Anisotropic Scattering of Light in a Semiinfinite Atmosphere. I. (T) V. V. Sobolev. 12, 202 (1968) [45, 254 (1968)]
Radiation Diffusion in a Plane Layer with Anisotropic Scattering. II. (T) I. N. Minin. 12, 209 (1968) [45, 264 (1968)]
Anisotropic Scattering of Light in a Semiinfinite Atmosphere. II. (T) V. V. Sobolev. 12, 420 (1968) [45, 528 (1968)]
A Method for Computing Absorption-Line Profiles. (T) I. M. Kats. 12, 844 (1969) [45, 1066 (1968)]

RADIO ASTRONOMY
On the Origin of the Blackbody Radiation of the Universe. (T/E) Yu. N. Pariiskii. 12, 219 (1968) [45, 279 (1968)]
Frequency Spectrum of the Distributed Cosmic Radio Emission in the Range from 6.3 to 40 MHz. (E) G. G. Getmantsev, V. S. Karavanov, Yu. S. Korobkov, and A. F. Tarasov. 12, 743 (1969) [45, 936 (1968)]

RADIO EMISSION MECHANISMS
Theory of the Slowly Changing Component of Solar Radio Emission. I. (T/E) E. Ya. Zlotnik. 12, 245 (1968) [45, 310 (1968)]
The Theory of the Slowly Changing Component of Solar Radio Emission. II. (T/E) E. Ya. Zlotnik. 12, 464 (1968) [45, 585 (1968)]
Conversion of Plasma Waves into Electromagnetic Waves in a Strong Magnetic Field. (T) V. N. Tsytovich and S. A. Kaplan. 12, 618 (1969) [45, 777 (1968)]

The Corona of a Pulsar – Its Oscillations and Radiation. (T) Ya. B. Zel'dovich. 12, 725 (1969) [45, 913 (1968)]

RADIO LINE EMISSIONS
Detection of the 5765.2-MHz Helium Radio Line in the Orion Nebula. (E) V. M. Gudnov, V. V. Zotov, L. M. Nagornykh, and R. L. Sorochenko. 12, 747 (1969) [45, 942 (1968)]
Radio Lines of the Interstellar NO Molecule. (T) L. N. Kotsev, G. I. Georgiev, and V. M. Kontorovich. 12, 1030 (1969) [45, 1306 (1968)]

RELATIVITY AND GRAVITATION
The Rest Mass of a Photon. (T) L. S. Marochnik. 12, 171 (1968) [45, 213 (1968)]
On the Possibility of Measuring Tangential Velocities by the Doppler Effect. (T) V. M. Morozov. 12, 173 (1968) [45, 216 (1968)]
A Calculation of the Observable Surface of a Part of a Friedmann Universe. (T) R. I. Khrapko. 12, 334 (1968) [45, 419 (1968)]
Equations for the Rotational Motion of Planets in General Relativity Theory. (T) V. A. Brumberg. 12, 659 (1969) [45, 828 (1968)]
Application of the Special-Relativity Principle to an Interpretation of Some Sources of Cosmic Radio Waves. (T/E) I. S. Shklovskii. 12, 730 (1969) [45, 919 (1968)]
Interpretation of Coordinates in the Schwarzschild Problem. (T) V. A. Brumberg. 12, 879 (1969) [45, 1110 (1968)]
The Relativistic Theory of Annual Parallaxes. (T/E) L. Ya. Arifov and R. K. Kadyev. 12, 882 (1969) [45, 1114 (1968)]

SELENODESY
The Geometric Figure and Dimensions of the Moon. (E) I. V. Gavrilov. 12, 319 (1968) [45, 399 (1968)]
Some Hypsometric Properties of the Figure of the Moon. (E) I. V. Gavrilov. 12, 522 (1968) [45, 658 (1968)]
Systems of Selenographic Coordinates, Precession, and Nutation of the Moon's Rotation Axis. (T/E) Sh. T. Khabibullin. 12, 526 (1968) [45, 663 (1968)]
The Gravitational Field and Figure of the Moon. (T/E) N. A. Chuikova. 12, 1021 (1969) [45, 1293 (1968)]

SHOCK WAVES
Parameters for Shock Waves Generating Type II Solar Bursts, and for Coronal Magnetic Fields. (T/E) V. V. Zaitsev. 12, 610 (1969) [45, 766 (1968)]

SPACE PROBES
Ring-Shaped and Linear Structures on Mars. (E/T) G. N. Katterfeld and P. Hédervari. 12, 863 (1969) [45, 1091 (1968)]

SPECTRA, ATOMIC AND MOLECULAR
Infrared Emission Spectra of Some Molecular Gases Excited by Fast Electrons. (E) A. G. Koval', N. P. Danilevskii, V. T. Koppe, and Ya. M. Fogel'. 12, 1045 (1969) [45, 1322 (1968)]

SPECTRAL LINES
Broadening of Hydrogen Spectral Lines by Plasma Electrons. (T) A. A. Minaeva. 12, 459 (1968) [45, 578 (1968)]
A Method for Computing Absorption-Line Profiles. (T) I. M. Kats. 12, 844 (1969) [45, 1066 (1968)]
The Use of Electronic Digital Computers for the Analysis of Spectrograms. (E) G. I. Abbasov. 12, 852 (1969) [45, 1077 (1968)]

STARS, ATMOSPHERES
Influence of a Homogeneous Horizontal Magnetic Field on Convection in a Polytropic Atmosphere. (T) N. S. Petrukhin. 12, 257 (1968) [45, 325 (1968)]

STARS, GIANT AND SUPERGIANT
Variations in the Circumstellar Envelope of the M Supergiant α Orionis. (E) M. Ya. Orlov and M. H. Rodriguez. 12, 369 (1968) [45, 462 (1968)]

STAR, METAL-LINE AND MAGNETIC
R. C. Cameron, Editor. The Magnetic and Related Stars. (R) Reviewed by V. L. Khokhlova. 12, 554 (1968) [45, 698 (1968)]

STARS, MOTIONS
Problems in Fundamental Astrometry and Their Relation to Milky-Way Research. (E/T) W. Fricke. 12, 1 (1968) [45, 3 (1968)]
Studies of Local Star Streams. I. The Hyades Stream. (E) K. F. Ogorodnikov and I. N. Latyshev. 12, 279 (1968) [45, 353 (1968)]
Initial Results of a Determination of Stellar Proper Motions Relative to Galaxies. (E) N. V. Fatchikhin. 12, 289 (1968) [45, 365 (1968)]
The Planck Stellar Velocity Distribution. III. The Ellipsoidal Approximation. (T) R. B. Shatsova. 12, 993 (1969) [45, 1254 (1968)]
Stellar Motion in the Gravitational Field of Condensing Interstellar Gas. (T) L. S. Marochnik. 12, 1000 (1969) [45, 1264 (1968)]

STARS, PULSATION THEORY
An Estimate for the Mixing Length from Stellar-Variability Theory. II. (T) V. I. Aleshin. 12, 74 (1968) [45, 95 (1968)]

STARS, ROTATION
The Energy of a Rotating Star and Its Dependence on the Angular-Velocity Distribution. (T) Yu. V. Vandakurov. 12, 647 (1969) [45, 813 (1968)]

STARS, SPECTROPHOTOMETRY
Stellar Energy Distribution at Infrared Wavelengths. (E) N. S. Komarov and V. A. Pozigun. 12, 105 (1968) [45, 133 (1968)]

STARS, STRUCTURE AND EVOLUTION
Similarity Theory for Stellar Models. (T) V. S. Imshennik and D. K. Nadezhin. 12, 63 (1968) [45, 81 (1968)]
Convective Envelopes of Stars in the Gravitational-Contraction Stage. (T) B. E. Zhilyaev and I. G. Kolesnik. 12, 67 (1968) [45, 86 (1968)]
The Equilibrium State of a Rotating Magnetic Gas Sphere. (T) Yu. V. Vandakurov. 12, 80 (1968) [45, 103 (1968)]
Mass Outflow from Stars Induced by High Atmospheric Opacity. (T) G. S. Bisnovatyi-Kogan and Ya. B. Zel'dovich. 12, 192 (1968) [45, 241 (1968)]
A Preliminary Analysis of the Physical Conditions in Helium-Star Envelopes. (T) L. I. Snezhko. 12, 199 (1968) [45, 251 (1968)]
The Effect of Initial Chemical Composition on the Evolution of Stars of Large Masses. (T) Yu. L. Frantsman. 12, 454 (1968) [45, 572 (1968)]

STARS, SUPERMASSIVE
Explosions of Large Stars. (T) G. S. Bisnovatyi-Kogan. 12, 58 (1968) [45, 74 (1968)]

STARS, UNSTABLE AND COLLAPSING
Neutrino Radiation during Stellar Collapse. (T) O. Kh. Guseinov. 12, 783 (1969) [45, 985 (1968)]
A Similarity Solution for Collapse through Energy Losses by Neutrino Radiation. (T) D. K. Nadezhin. 12, 924 (1969) [45, 1166 (1968)]

SUN
M. A. Livshits. The Sun. (R) Reviewed by É. Dubov. 12, 556 (1968) [45, 699 (1968)]

SUN, ATMOSPHERE
Displacement and Broadening of Fraunhofer Lines. II. Variation of Turbulent Velocity in the Solar Atmosphere. (E/T) I. A. Aslanov, Yu. D. Davudov, and I. R. Salmanov. 12, 49 (1968) [45, 62 (1968)]

Effect of Term Parity on the Curve of Growth. (E/T) D. M. Kuli-Zade. 12, 54 (1968) [45, 69 (1968)]
A New Solar Curve of Growth. (E) D. M. Kuli-Zade. 12, 254 (1968) [45, 321 (1968)]
Turbulent Velocities in Faculae and the Photosphere. (E/T) G. F. Sitnik and O. N. Mitropol'skaya. 12, 363 (1968) [45, 456 (1968)]

SUN, FLARES AND PROMINENCES
Flares, Prominences, and Loop Prominences. I. (E/T) Yu. M. Slonim. 12, 225 (1968) [45, 286 (1968)]
Flares, Filaments, and Loop Prominences. II. (T/E) Yu. M. Slonim. 12, 578 (1969) [45, 726 (1968)]
Evolution of High-Temperature Regions under Cosmic Conditions. (T/E) A. A. Korchak and Yu. V. Platov. 12, 939 (1969) [45, 1185 (1968)]

SUN, MAGNETIC FIELDS
A Possible Mechanism for Producing Sunspot Magnetic Fields. (T/E) A. V. Getling and B. A. Tverskoi. 12, 481 (1968) [45, 606 (1968)]
Integral Properties of Force-Free Fields. (T) M. M. Molodenskii. 12, 585 (1969) [45, 732 (1968)]
Magnetic Fields in the Convection Cells of the Supergranulation Zone. (T) A. V. Getling. 12, 967 (1969) [45, 1222 (1968)]

SUN, MOLECULES IN ATMOSPHERE
Radio Lines of the Interstellar NO Molecule. (T) I. N. Kotsev, G. I. Georgiev, and V. M. Kontorovich. 12, 1030 (1969) [45, 1306 (1968)]

SUN, RADIO EMISSION
The Origin of Type-V Solar Radio Bursts. (T) V. V. Zheleznyakov and V. V. Zaitsev. 12, 14 (1968) [45, 19 (1968)]
Polarization of Type-II and Type-III Solar Radio Bursts. (T) V. V. Fomichev and I. M. Chertok. 12, 21 (1968) [45, 28 (1968)]
The Sizes of Local Sources of Solar Radio Emission at a Wavelength of 4.5 cm. (E) A. N. Korzhavin and N. G. Petrova. 12, 28 (1968) [45, 36 (1968)]
Flares, Prominences, and Loop Prominences. I. (E/T) Yu. M. Slonim. 12, 225 (1968) [45, 286 (1968)]
Theory of the Slowly Changing Component of Solar Radio Emission. I. (T/E) E. Ya. Zlotnik. 12, 245 (1968) [45, 310 (1968)]
The Theory of the Slowly Changing Component of Solar Radio Emission. II. (T/E) E. Ya. Zlotnik. 12, 464 (1968) [45, 585 (1968)]
The 1.6-cm Radio Emission of Solar Sources Associated with Sunspots and Flocculi. (E) A. S. Grebinskii, V. I. Man'ko, and L. V. Yasnov. 12, 473 (1968) [45, 597 (1968)]
Longitude Dependence of the Degree of Polarization of Type III Solar Radio Bursts. (E/T) V. V. Fomichev and I. M. Chertok. 12, 477 (1968) [45, 601 (1968)]
Parameters for Shock Waves Generating Type II Solar Bursts, and for Coronal Magnetic Fields. (T/E) V. V. Zaitsev. 12, 610 (1969) [45, 766 (1968)]
Elliptical Polarization of Type-III Solar Radio Bursts in the Decameter Range. (E/T) V. V. Fomichev and I. M. Chertok. 12, 615 (1969) [45, 773 (1968)]

SUN, SPECTRUM
A Comparative Study of the Behavior of Lines on the Solar Disk from Eclipse and Out-of-Eclipse Observations. (E) M. S. Murasheva, N. I. Kozhevnikov, and G. F. Sitnik. 12, 36 (1968) [45, 45 (1968)]
Mean Absolute Energy Distribution in the Solar Spectrum from 1800 Å to 4 mm, and the Solar Constant. (E) E. A. Makarova and A. V. Kharitonov. 12, 599 (1969) [45, 752 (1968)]

SUN, ULTRAVIOLET EMISSION
The Lyman-α Radiation Field in a Chromospheric Filament. (T) N. A. Yakovkin and M. Yu. Zel'dina. 12, 40 (1968) [45, 50 (1968)]

SUN, X RAYS AND GAMMA RAYS
Nuclear Reactions and the Line Spectrum of Solar-Flare Gamma Rays. (T/E) B. M. Kuzhevskii. 12, 595 (1969) [45, 747 (1968)]

SUNSPOTS
Longitude Distribution of Sunspots in New Cycles during the Initial Phase of Solar Activity. (E) V. Berdichevskaya. 12, 366 (1968) [45, 459 (1968)]

SUPERNOVAE
Identification of the Absorption Spectrum of the Type I Supernova. (E) Yu. P. Pskovskii. 12, 750 (1969) [45, 945 (1968)]
The Starting Time of a Supernova Outburst and the Mass of the Ejected Envelope. (E/T) Yu. P. Pskovskii. 12, 919 (1969) [45, 1160 (1968)]

SUPERNOVA REMNANTS
Spectrophotometry of the Supernova Remnants IC 443 and NGC 6888. (E) T. A. Lozinskaya and V. F. Esipov. 12, 913 (1969) [45, 1153 (1968)]

SYNCHROTRON RADIATION
The Polarization of Synchrotron Radiation. (T) É. G. Mychelkin. 12, 326 (1968) [45, 408 (1968)]

VARIABLE STARS
The Atmospheres of Beta Canis Majoris Stars. I. Gamma Pegasi. (E) M. Ya. Orlov. 12, 89 (1968) [45, 115 (1968)]
Periodic Brightness Variations of AG Peg. (E) T. S. Belyakina. 12, 110 (1968) [45, 139 (1968)]
The Atmospheres of Beta Canis Majoris Stars. II. Delta Ceti. (E) M. Ya. Orlov. 12, 450 (1968) [45, 568 (1968)]

VENUS
An Investigation of the Atmosphere of Venus. II. (T/E) V. V. Sobolev. 12, 135 (1968) [45, 169 (1968)]
An Investigation of the Backscattering Diagram of Venus at 40-cm Wavelength. (E/T) Yu. N. Aleksandrov, B. I. Kuznetsov, and O. N. Rzhiga. 12, 294 (1968) [45, 371 (1968)]
Diffuse Scattering and the Radar Reflectivity of Planetary Surfaces. (T/E) Yu. N. Aleksandrov and O. N. Rzhiga. 12, 489 (1968) [45, 616 (1968)]

WHITE DWARFS
The Corona of a Pulsar – Its Oscillations and Radiation. (T) Ya. B. Zel'dovich. 12, 725 (1969) [45, 913 (1968)]

X-RAY SOURCES
Absorption of Soft X Rays in the Interstellar Medium and the Spectrum of the Source Sco X-1. (T/E) L. A. Vainshtein, V. G. Kurt, and E. K. Sheffer. 12, 189 (1968) [45, 237 (1968)]
X-Ray Emission from Radio Galaxies and Quasars. (T/E) B. V. Komberg and V. M. Charugin. 12, 737 (1969) [45, 928 (1968)]

ZODIACAL LIGHT
Polarization of Certain Components of Night-Sky Radiation Scattered by the Troposphere. (T/E) N. B. Divari. 12, 503 (1968) [45, 634 (1968)]

ERRATA

In the article by Yu. V. Vandakurov, Soviet Astronomy – AJ, Vol. 12, No. 4, the following corrections should be made:

Page	Location	Reads	Should read
649	col. 2, line 13 from top	..., $<\rho_C>/\overline{\rho}$,	..., $<\rho_C>/\overline{\rho}$,
650	Table 1, Model No. 2, lines 3 and 4 from top	41 1	1 41
650	Table 2, Model No. 9, line 3 from bottom	2.101	2.1014
650	Table 2, Model No. 9a, lines 1–4 from the bottom	0 2.1044 – –	8.8579 0.46873 0.19721 2.1049
650	Eq. (17)	$\{-k(x^2-x_2^2)\}$	$\{-k(x^2-x_1^2)\}$